



Rocky Mountain National Park

Resources Rendezvous



Winter 2004

A New Year of Opportunities

Welcome to a new year of opportunities at Rocky Mountain National Park. It is my pleasure as Superintendent to oversee a tremendous program and staff who strive to ensure resource protection and visitor satisfaction.

This year we have the opportunity to deal with an assortment of issues. Some topics are updated in this newsletter, including elk and vegetation management, winter activities and projects. Other issues are more behind the scenes, but are important to daily operations, including budgets and staffing.

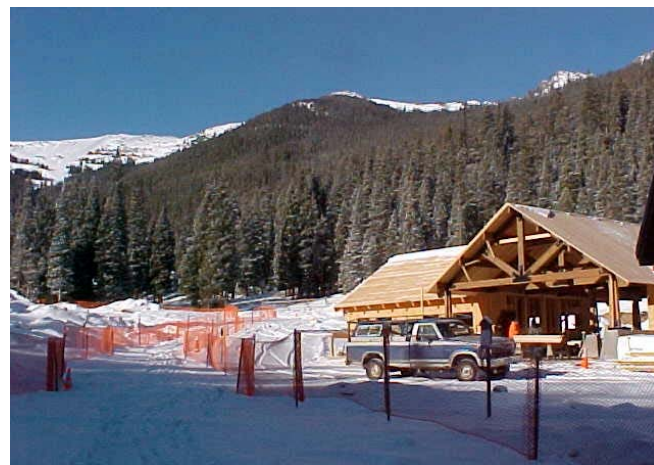
I hope you enjoy this update on some of the important facets that make up the whole of this great national park.

Vaughn Baker
Superintendent

Winter Activity Update

Hidden Valley

The Hidden Valley area is undergoing extensive changes. All of the former Hidden Valley Ski Area buildings and the large parking lot have been removed. New facilities will include a building for public rest rooms, warming hut and ranger office, a smaller (122 space) parking area, and picnic pavilion. The Hidden Valley area is currently open for winter snowplay - snow permitting! Construction isn't done yet, and orange construction fencing marks the closure areas and delineates a corridor from the parking lot to the open sledding slopes. Volunteers called "Sled Dawgs" help visitors have a safe and enjoyable time. This spring construction will resume: a section of Hidden Valley Creek, which has been hidden in a culvert for about 50 years, will be daylighted, buildings will be completed, and the parking area paved.

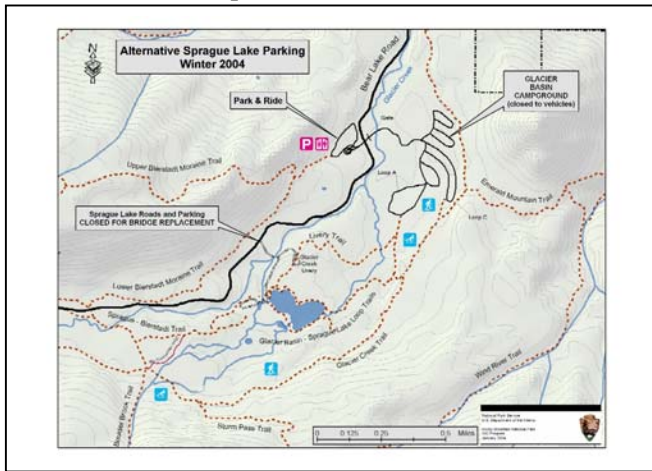


New warming hut building and construction fencing to direct visitors to the snowplay area

Sprague Lake Bridge Improvements

On February 9, 2004, the contractor for the Bear Lake Road Reconstruction Project began work on the reconstruction of the Sprague Lake Bridge, and closure of the bridge and access roads to the Sprague Lake Picnic area and Glacier Creek Stables took place. The bridge is located on the Sprague Lake Road crossing Glacier Creek. The Sprague Lake picnic area and the Glacier Creek Stables are inaccessible by vehicles from the Bear Lake junction until May 1, 2004.

Visitors will still be able to access the Sprague Lake area from a myriad of trails (please see map). The best option for visitors will be to park at the Park & Ride and snowshoe or ski in to Sprague Lake from the Glacier Basin Campground.



The completed bridge will meet the requirements to withstand a hundred-year flood event. The new intersection will be a T-shape with a 3-way stop sign, which will facilitate the flow of traffic, allow visitors to more easily see the sign for the stables, and increase the safety of horse rides crossing the road. The new bridge will also be wider than the existing one. A short section of the road south of the bridge will be widened to more safely accommodate two-way traffic.

Park & Ride Lot

All facilities at the Park & Ride are complete! This includes public restrooms, bus shelter, a building for Rocky Mountain Nature Association book sales, bus operator office and ranger office, and paved parking. With lots of parking and restroom facilities and because Glacier Basin Campground and Road are not open to vehicles in the winter, this is a great location for visitors to base skiing and snowshoeing activities.

Bear Lake Road and Bear Lake Parking Lot

Rocky Mountain National Park has completed the first year of a two-year construction project on the Bear Lake Road. Although construction is not occurring during the winter months, the uneven road surface and narrow sections of the road may mean the road will be temporarily closed while snowplowing is underway. Because this is a construction zone, visitors need to be especially careful and aware of their surroundings, proper areas to park, possible obstacles, and equipment and machinery. Visitors are encouraged to call the information office or the park's recorded line (586-1333) to check on the latest road conditions.

Some equipment is being staged in the Bear Lake parking area over the winter. Therefore, parking is limited and most likely full by early morning on weekends. Carpooling is strongly encouraged for visitors that are planning to go to Bear Lake. Port-a-johns are available again this winter at the Bear Lake parking area.



Cars must share space with construction equipment and materials this winter at Bear Lake

West Side Snowmobile Access

Beginning this winter season, the park implemented the decision made earlier this year to keep the North Supply Access Trail open to snowmobiles; all other snowmobile routes in the park, including Trail Ridge Road, are closed. The North Supply Access Trail route traverses a two-mile section in the southwest corner of the park, providing access between Grand Lake and 100 miles of snowmobile trails on adjacent National Forest lands.

Slash Pile Burning Operations Continue

RMNP fire managers are continuing to work on several fuels reduction projects near the park boundary this winter. Material generated from forest thinning operations will be burned at several locations, including Deer Mountain, Emerald Mountain, Eagle Cliff Mountain, Moraine Park and Hidden Valley. Later this winter burning of slash from thinning operations, along with some trees that have been killed by Mountain Pine Beetle infestation, will also be conducted in the Grand Lake area.

Smoke may be visible in sections of the park. Residents in the Fall River corridor, on the east side of the park, may smell smoke in the air. Since these are planned events, please do not report these fires to park staff or local authorities. Safety factors, weather conditions, air quality and environmental regulations are continually monitored as part of any fire

management operation. Smoke emissions will be managed in accordance with the Colorado Department of Public Health and Environment guidelines.

"We are planning to take advantage of the opportunities the winter weather provides us to safely burn these fuels and reduce future wildfire hazards," said Superintendent Vaughn Baker. When conditions are not favorable for burning, fire crews will conduct additional thinning operations. Hand tools and chainsaws are used to remove dead and downed vegetation and thin closely spaced trees. Some of the wood may be hauled away to burn or be sold as firewood. The remaining material is stacked in piles to dry out for burning the following winter.

These projects are being conducted in association with the Front Range Fuels Treatment Partnership, an interagency program with the Colorado State Forest Service and United States Forest Service, designed to reduce wildland fire risk through sustained fuel treatments along the Colorado Front Range.



Slash pile burning at RMNP

Fees and the Good Things They Accomplish at Rocky Mountain National Park

Rocky Mountain National Park is a busy place! To operate, the park utilizes a number of funding sources in addition to the budget that Congress authorizes. The Fee Demonstration Program provides an important source of funding through entrance and camping fees.

The U.S. Congress authorized the Fee Demonstration Program in 1996. The program allows National Park Service sites, including Rocky Mountain National Park, to keep the majority of entrance and campground fees (80%) collected at their sites to use to assist with natural and cultural resource management and science research as well as repair, rehabilitation and renovation needs. The fee demonstration program has added approximately 30% to the park's annual budget. More than 90% of surveyed park visitors have expressed support for this program. In Fiscal Year 2003, RMNP received over \$3 million through Recreation Fee Demonstration funds.

Camping Fees

There are five primary frontcountry campgrounds in the park with 589 total sites. Sites at Moraine Park and Glacier Basin Campgrounds, located along the popular Bear Lake Road, can be reserved through a reservation system. Aspenglen (Fall River Entrance), Timber Creek (on the west side of the park) and Longs Peak (south off of Highway 7) campgrounds are operated on a first come, first served basis. Effective for the 2004 summer season, camping fees at all of these campgrounds will increase from \$18 to \$20. Starting in October 2004, winter campground fees will increase from \$12 to \$14. Park staff conduct fee comparability studies annually to compare RMNP fees with surrounding private and public campground fees to determine current rates. The average rate for individual campsites near RMNP is \$24.

Backcountry Fees

To protect the fragile backcountry/wilderness resources of the park, a backcountry permit system is in effect. Requiring a permit to camp overnight in the backcountry provides a means to manage visitor use. The steady growth in the number of campers over the last decade has resulted in damage to some of the more popular backcountry spots. The backcountry permit is a contract between the user and the National Park Service that they agree to treat the backcountry with respect and will take care of the backcountry/wilderness resource.



A properly displayed backcountry permit along the Fern Lake trail

Proper trip planning, gaining good information and camping in designated areas helps visitors enjoy the park and reduces their impact on the park resource. Over the last five years, the park has averaged 9,000 permits each year and 50,000 user nights per year. The permitting process is computerized for efficiency. Effective for the 2004 summer season, there is an increase in the administrative fee from \$15 to \$20 for each backcountry permit issued between May and October. Self-registration, at no charge, is available November through April. This revenue is used in the park to pay for staffing the Backcountry Office and the computerized reservation system.

Examples of completed projects funded from fee demo funds

- Rehabilitated 32 Vault Toilets
- Rehabilitated 250 campsites
- Rehabilitated Moraine Park Amphitheater
- Rehabilitated 30 miles of Trails
- Rehabilitated a portion of McGraw Ranch
- Corrected accessibility deficiencies at Beaver Meadows Visitor Center
- Corrected accessibility deficiencies at the Kawuneeche Visitor Center (KVC)
- Corrected accessibility deficiencies at the Alpine Visitor Center (AVC)
- Repair the rock wall at Far View Curve on Trail Ridge Road
- Rehabilitate Beaver Meadows Entrance Station
- Improve inadequate restrooms at AVC and KVC
- Rehabilitated McLaren Hall – an historic structure
- Produced new park film *Spirit of the Mountains*
- Completed boreal toad surveys and UV-B light effects on amphibian research
- Research on effects of magnesium chloride on roadside vegetation
- Research on bird population responses to fire in ponderosa pine ecosystems

Projects In Progress or Pending

- Campground rehabilitation (campsites, restrooms, and amphitheaters)
- Targeted trail rehabilitation
- Reduce backlog of deferred maintenance found in condition assessments
- Rehabilitation of inadequate rock wall segments on park roads
- Complete backlog of deferred maintenance on the park's historic structures
- Complete backlog of deferred maintenance at roadside picnic areas
- Repair unsafe trail bridges
- Convert park radios to digital narrowband system
- Research on abundance and distribution of bighorn sheep



New style vault toilet with "Sweet Smelling" design



Old style being replaced



CURRENT SNOW PACK (SNOW WATER EQUIVALENTS) as of February 11, 2004

From the Natural Resources Conservation Service website SNOTEL data

West side of park - 70% of average

- ◆ Lake Irene: 66% of average
- ◆ Phantom Valley: 80% of average

East side of park – 85% of average

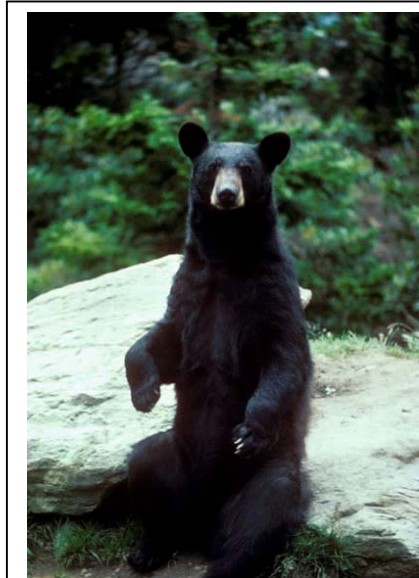
- ◆ Bear Lake: 91% of average
- ◆ Copeland Lake: 83% of average
- ◆ Willow Park: 79% of average

Bears

By Dr. Terry Terrell, Science Officer

Black bears (*Ursus americanus*), among the largest and least frequently seen mammals in Rocky Mountain National Park, are hibernating peacefully now. The opportunity to see one in the wild is a never-to-be-forgotten experience for many park visitors. Given their size and charisma, it may be surprising to some how little we know about the park's only remaining bear species. (Grizzly bears had been eradicated from the park by the time it was created in 1915).

Between 1984 and 1991, due to a rise in bear sightings in the park, staff conducted a study of the bears. From that study, the average weight for adult female bears was 121 lbs. and for males was 175 lbs., about 1/2 to 2/3 the weight of black bears in west-central Colorado. Females produced their first cubs at age 7 or 8. Bears in other parts of Colorado produce their young at age 5 or 6, and in Idaho at about age 5. In addition to producing young later in life, park bears also tended to have fewer cubs than bears in other parts of Colorado. Estimates suggested that between 20 and 35 bears lived in the park. Those bear densities were 1/6 of those in west-central Colorado to 1/12 of those in other Rocky Mountain states. The study suggested that the park had naturally poor habitat for bears, but attracted them because hunting was, and remains, prohibited.



Why black bears (*Ursus americanus*) are few in number and small in size in RMNP remains poorly understood

Photo courtesy of the US Fish & Wildlife Service.

But what is the situation now? We honestly don't know. Because of our lack of knowledge and the park's commitment to managing our resources based on good science, bear research started again in 2003. Because the current effort is more focused, we hope to be able to have a much more accurate estimate of bear numbers, sizes, ages, and genders. We hope to understand more about what our bears eat and where they live. Most importantly, for both the bears and our visitors, we hope to understand how to reduce conflicts between them.

BEAR-PROOFING THE BACKCOUNTRY

By Leanne Benton from an interview with Tim Devine, RMNP Wilderness Specialist

It is nearly dark. The tent is pitched, dinner is eaten, and your teeth are brushed. You have carefully placed EVERYTHING – food, trash, film, toothpaste, Chapstick, anything with a scent – in a stuff sack and are searching for the perfect food-hanging tree. A forest of lodgepole pine, Engelmann spruce, and subalpine fir, skinny trees with short, slender branches, surrounds your camp area. How will you ever get the stuff sack suspended ten feet off the ground and four feet from a tree trunk? Finally, after an extensive search you spot a tree with potential – a lodgepole pine with one branch a bit longer than most. You carefully wrap one end of your rope around a rock and heave it toward the branch. It misses, but on the second try it flies over the branch carrying the rope with it. You attach the stuff sack to the rope and hoist it up into the tree. It isn't textbook perfect, but your food is hung!



Ammo can food storage locker

Some time later as you are snuggling into your sleeping bag you roll over onto something hard. Yikes! It is a Tootsie Roll that you had stuffed in your pocket at the last minute. Tootsie Rolls don't have a smell, do they?? Too tired to climb back outside you decide to forget it and go to sleep. But...every sound, every whisper of pine needles, every twig that crunches jolts you awake. Some time in the middle of the night you unzip your tent and heave the Tootsie Roll out into the darkness. You sleep terribly the rest of the night and in the morning, with eyes half open, you search endlessly until you find the discarded treat.

Keeping food out of the reach of bears and other wildlife in the backcountry is a challenge for backpackers. Many of the park's trees have numerous slender branches which would easily enable a bear to climb up and get into a food cache. Once the food is hung, it is inconvenient to get into the cache and re-

hang it every time something is needed, so frequently attractants are left in easy reach. Even when backpackers do everything right, sometimes bears are able to get into food caches. Rocky's bears are smart. Some bears have learned to jump up and down on branches until they break, bringing food caches down. Bears have also dive-bombed hanging food bags in Wild Basin and broken them open in mid-air.

A few of years ago, RMNP modified 40 army surplus ammo cans and installed them in the backcountry to serve as bear-proof food storage canisters. The canisters are painted brown with yellow tops. The lids are secured with bolts and wing nuts. These food storage canisters are located in various backcountry campsites throughout park including the Boulderfield (which also protect food from marmots and birds). They are not provided at every backcountry campsites.



Portable food storage canisters

Unfortunately, there have been several maintenance problems with the modified ammo cans; frequently the wing nuts get lost and the lids can't be secured. Another method of securing the lids is being developed.

Park staff encourage backpackers to use personal storage devices - portable canisters made of plastic or aircraft aluminum that fit inside backpacks. They are secured with attached screws and field tests with bears show they are bear-proof. Because the canisters don't have to be hung in trees they are much more convenient to use. Canisters are available for rent or purchase at various locations in Estes Park.

Finding an easy and effective way to secure food, trash and other scented items from bears and other wildlife is a priority for the park. It is essential not only to prevent wildlife from becoming habituated to these human items but also to encourage people to actually use the system.

ELK AND VEGETATION MANAGEMENT PUBLIC SCOPING PERIOD....THE COMMENTS ARE IN!

From a report prepared by Therese Johnson, RMNP Management Biologist and Carlie Ronca, Natural Resource Specialist

As an important step toward preparing an Elk and Vegetation Management Plan (EVMP)/Environmental Impact Statement (EIS) the park held a public scoping period last August and September. The public was invited to provide comments through public meetings, the project internet site, a widely distributed newsletter and at visitor centers, and provide input on elk and vegetation management issues, concerns, and potential actions or tools for consideration. The park received 1,137 comments.

Approximately three-quarters of the comments expressed support or opposition to specific management actions. The remaining comments (in order of frequency) addressed topics such as elk populations, vegetation conditions, Chronic Wasting Disease, effects on other wildlife species, public safety and health, visitor use and experience, educational opportunities, socio-economics, cooperating agencies, hydrology, species biodiversity, National Environmental Policy Act, purpose and need for the plan, park operations, and wetlands.

The most common issue addressed was population management/control of elk with 90% of the comments supporting some type of elk population management or control. However, there was a wide diversity of opinions on what specific management or control actions might be appropriate. Comments on this topic (in order of frequency) were wolf reintroduction, culling by agency staff, hunting both inside and outside the park, fertility control, fencing, beaver reintroduction, hazing, and land purchase or zoning.

These scoping results provide managers with information about what issues are important to the public and reveal issues in which more public education is needed.

Currently, scoping results are being used by the interagency planning team to develop draft alternatives for the EVMP/EIS. In April, the public will be able to comment on the draft alternatives developed to date. The Final Record of Decision is not expected until October 2005.

MOUNTAIN LION RESEARCH

By Dr. Terry Terrell, Science Officer

In early February, a mountain lion (*Felis concolor*) killed a large bull elk (*Cervus elaphus canadensis*) near a Rocky Mountain National Park trail. This kill is a bit unusual because mountain lions usually prefer to prey on mule deer (*Odocoileus hemionus*), the smaller relative of elk. Although adult mountain lions in the vicinity of the park are thought to range between 80 and 180 pounds and an average bull elk weighs about 750 pounds, elk sometimes fall prey to mountain lions. Some possible reasons for this may be because the elk is not healthy, because its escape is hampered by snow, or because it just happens to walk too near a hungry mountain lion.

Because the kill was reported quickly, and because the mountain lion chose to cache the uneaten remainder of the elk near a trail, it was possible for scientists doing research in the park to capture the lion and fit him with a tracking collar. Colorado Division of Wildlife researchers have a permit to collar up to three mountain lions in the park for the purposes of determining whether or not mountain lions prefer to prey on Chronic Wasting Disease infected deer and elk rather than on healthy animals. If this is the case, mountain lions may help to slow the spread of this destructive disease. In a second project, a US Geological Survey researcher is using the same data to try to get some idea of the number, ages and sexes of park mountain lions, what they eat, and what type of habitat they prefer. Hopefully this information will help the park staff understand how to manage them and how to minimize the number of human-mountain lion conflicts. There is already a discussion with other Colorado Division of Wildlife researchers about using data collected for these projects in yet another research project.

It is very important to park staff, when they review applications by qualified researchers to conduct their work in the park, to assure that the research proposed does not permanently harm park resources, and that it causes the absolute minimum short term impact. It is ideal when more than one research project can use the same animals and share data. This minimizes the number of animals that must be handled and collared.



This elk carcass was cached by a mountain lion in RMNP



A collar has been attached to this anesthetized mountain lion in RMNP. The Colorado Division of Wildlife veterinarian associated with this project continuously monitored his temperature and used a space blanket to keep him warm during this process.



After the anesthesia used during collaring was reversed, the mountain lion slipped back into the darkness of RMNP

WINTER WINDS IN ROCKY MOUNTAIN NATIONAL PARK – Setting the Record Straight!

By Park Ranger Leanne Benton from email interviews with David Glidden, RMNP Wind Researcher; and Winter Wind Studies in Rocky Mountain National Park by D. E. Glidden.

We know that Rocky Mountain National Park is a windy place. But how windy is it? There are many stories floating around the park citing different maximum wind gusts and telling of anemometers blowing off their mounts. Which stories are true and which are “ranger folklore?” David Glidden, who conducted wind studies in the park during the winters of 1973-74 and 1980-81, clears up some of the haze around this topic.

Following a May 1973 storm when wind flattened thousands of trees in Hidden Valley, information on the park’s wind became extremely important. David Glidden established several wind research sites in the fall of 1973 in Upper Hidden Valley and along Trail Ridge which were monitored throughout that winter. During the summer of 1980 he set up a wind research site on the summit on Longs Peak which was monitored that winter.

- ❖ **The maximum wind gust recorded on Trail Ridge was 155 mph** on December 12, 1973. This was at the Trail Ridge 1 site, located above Forest Canyon Overlook at 12,036'. This site only functioned from October 12 to December 15th, when it was decommissioned due to failure. Some time just after the December 12th gust another wind gust caused the 3-cup anemometer to separate from the generator assembly and blow away. There was no way to know the true maximum gust that caused this damage, but controlled tests done in a laboratory showed that anemometer separation tended to occur near 170 mph.

Other earlier sources have cited wind speeds on Trail Ridge as high as 174 mph but these can't be substantiated because no record of this data has been found. Earlier anemometers were not capable of recording or surviving wind speeds of that magnitude, which gives further doubt to this higher number. However, wind speeds of 170 mph on Trail Ridge are certainly possible. The 155 mph gust was recorded at a site that only functioned during a short two-month period.

- ❖ **The maximum wind gust recorded on Longs Peak was 201 mph** during the winter of 1981. For this study a specially designed and reinforced lexan hub unit was used which could withstand higher winds. The Longs Peak site also had backup equipment in case there was a failure with one system. Even with the improved anemometer there were problems with rime ice building up on the unheated rotating cups. Data was recorded for only 74 days. David stated that the average wind speeds at Longs Peak were unexpectedly low, which was likely due to the rime ice and a short anemometer height of 3.6 meters.
- ❖ **The world record surface wind gust is 231 mph, recorded at Mount Washington** in New Hampshire. This was recorded during over 60 years of data collecting. Other "windy" places include Thule, Greenland (207 mph) and Mount Fuji (162 mph).

Rocky Mountain National Park Monthly Public Use Report for December, 2003

	<u>Total</u>	<u>Percent Change</u>
2003 Calendar Year to Date: Total Number of Visitors	3,249,444	3.55%
2002 Calendar Year to Date: Total Number of Visitors	3,138,066	
December 2003: Number of Visitors	77,453	1.79%
December 2002: Number of Visitors	76,090	

Entrance Stations & Camping - Number of Visitors

	<u>Current Month</u>	<u>Year to Date</u> (Calendar Year 2003)
Beaver Meadows	28,208	1,266,644
Fall River	18,533	871,632
Grand Lake	2,854	459,635
Longs Peak	8,419	155,548
Wild Basin	1,875	96,642
Minor Entrances	15,228	469,343
Sun Valley	12,570	173,439
Camping	295	209,007

Park Total Visitors - Ranking For Calendar Year 2003

In relation to all units in the National Park system: 21st

In relation to all United States National Parks: 5th for all visitors; 6th for all recreation visitors

Data provided by the Information Office, Rocky Mountain National Park
Contact the office at 970-586-1206